

COMMERCE GENERAL ARCHITECTURE

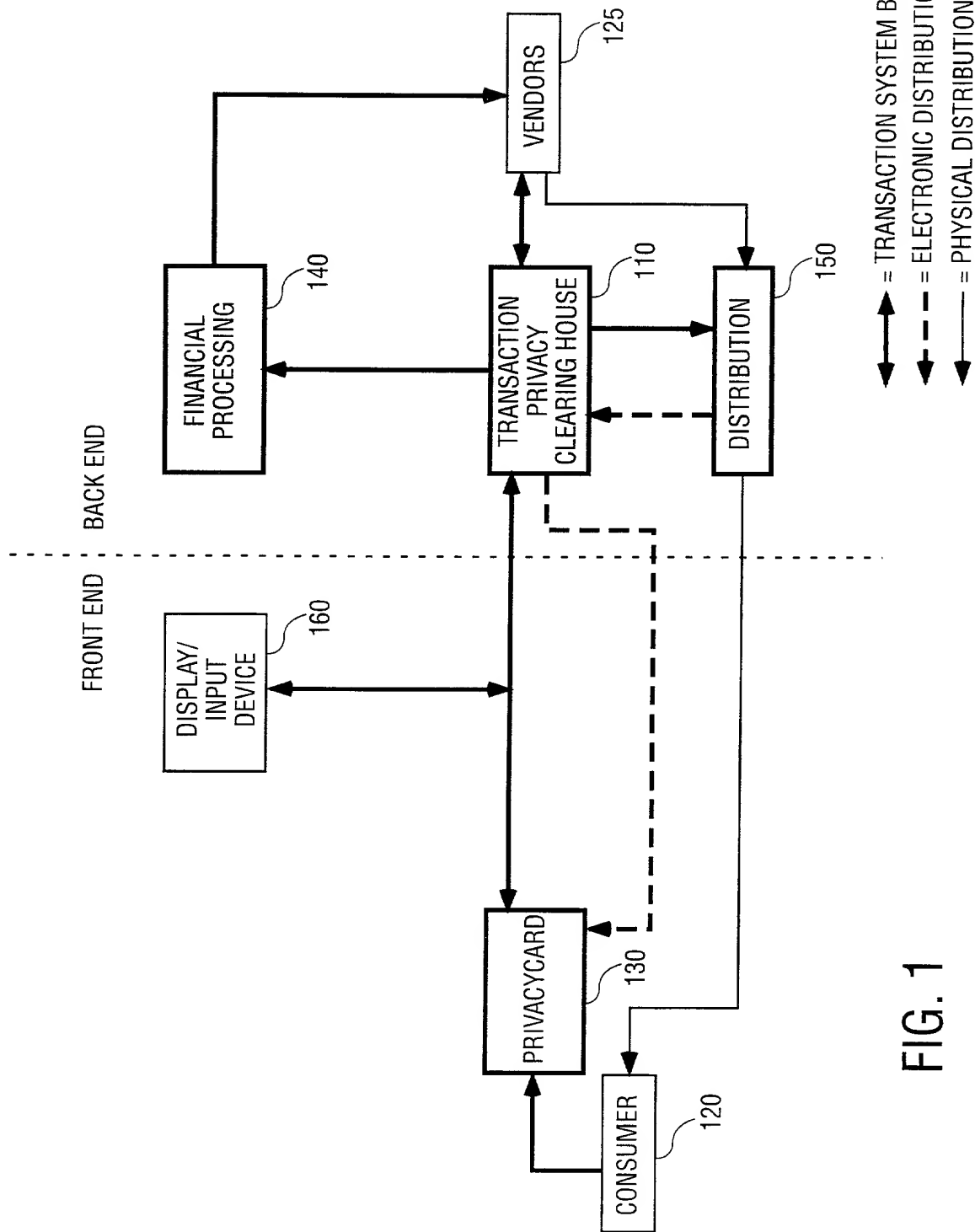


FIG. 1

COMMERCE GENERAL ARCHITECTURE - POS TERMINAL:

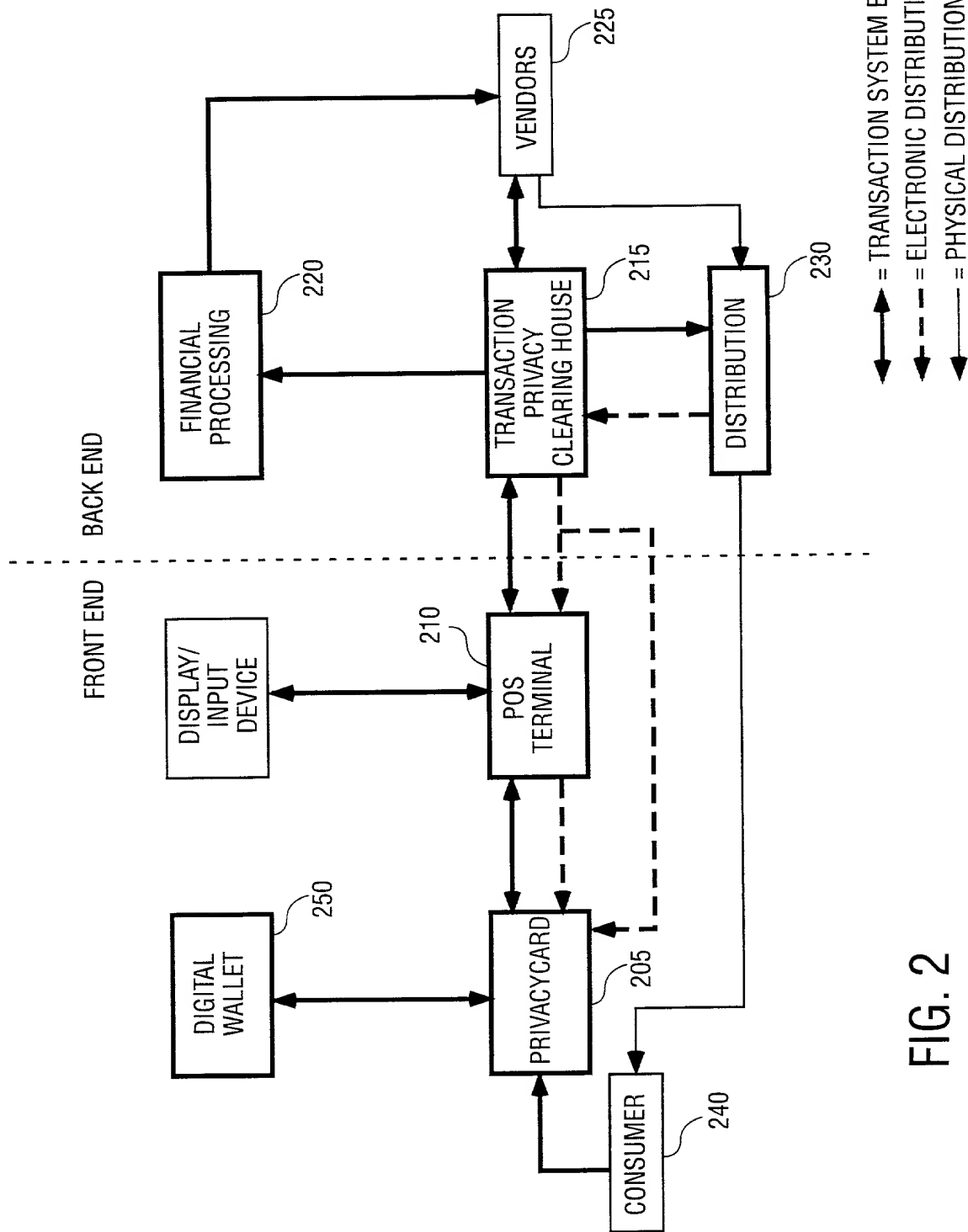


FIG. 2

COMMERCE IN-HOME ENVIRONMENT

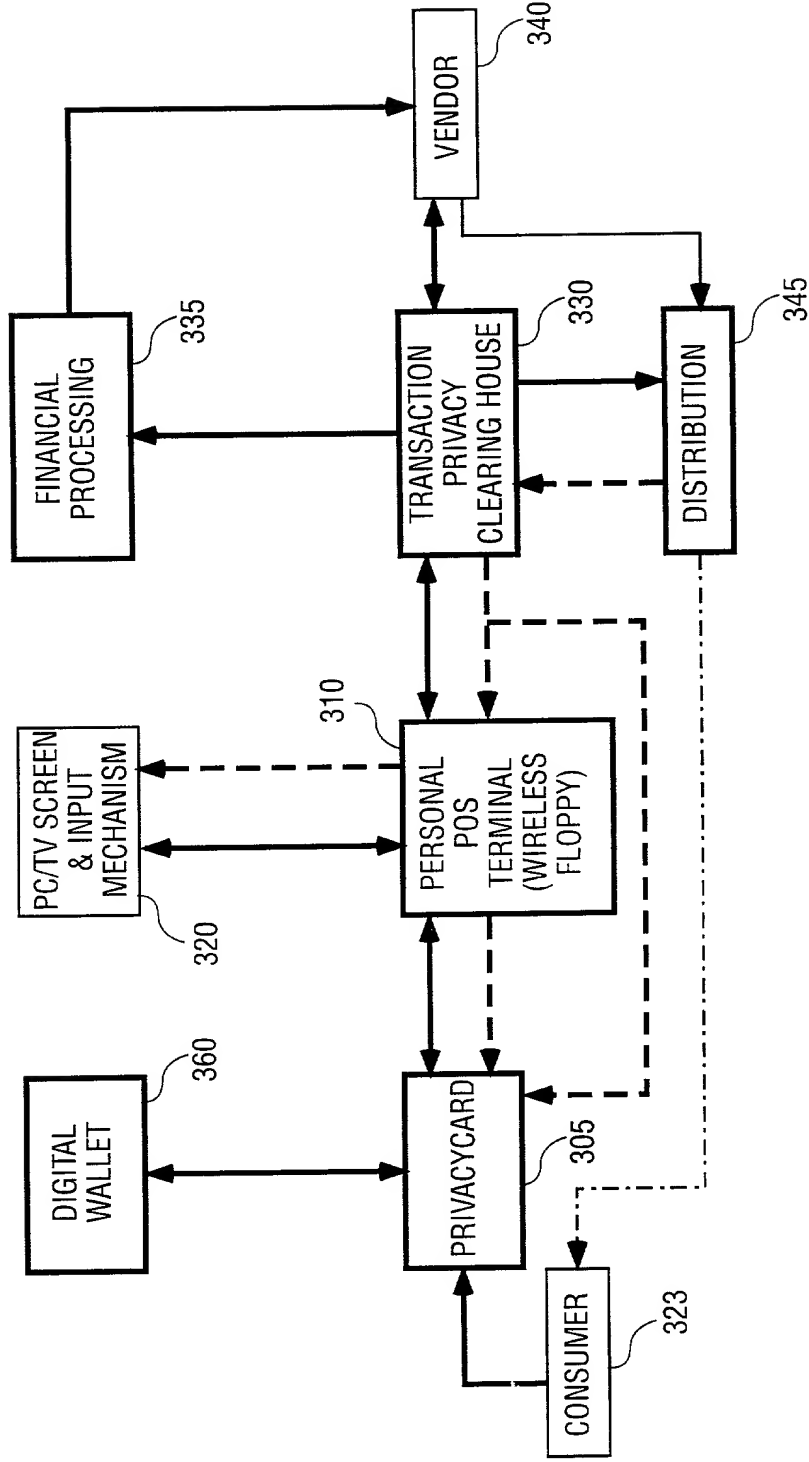


FIG. 3

IN-STORE RETAIL ENVIRONMENT

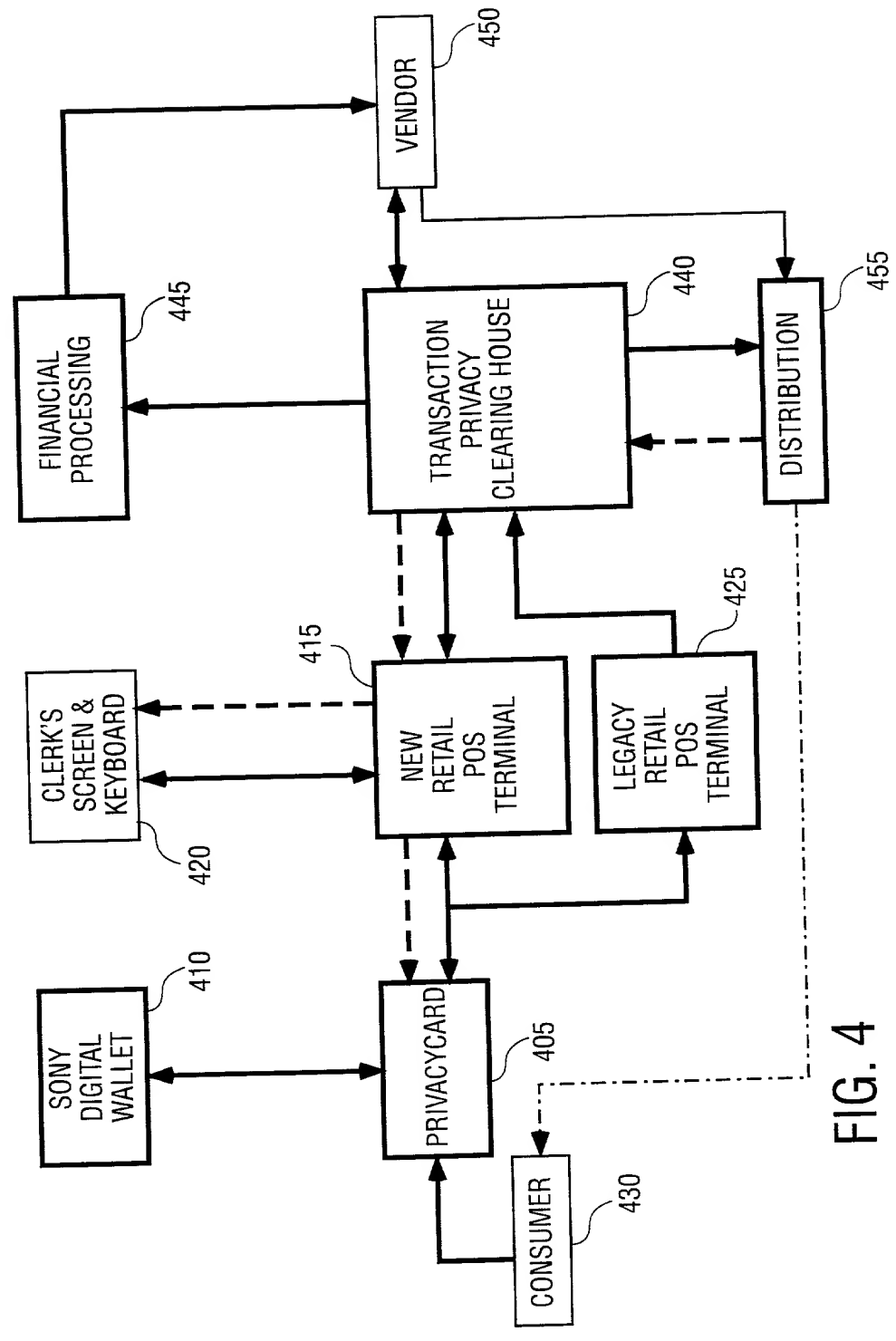
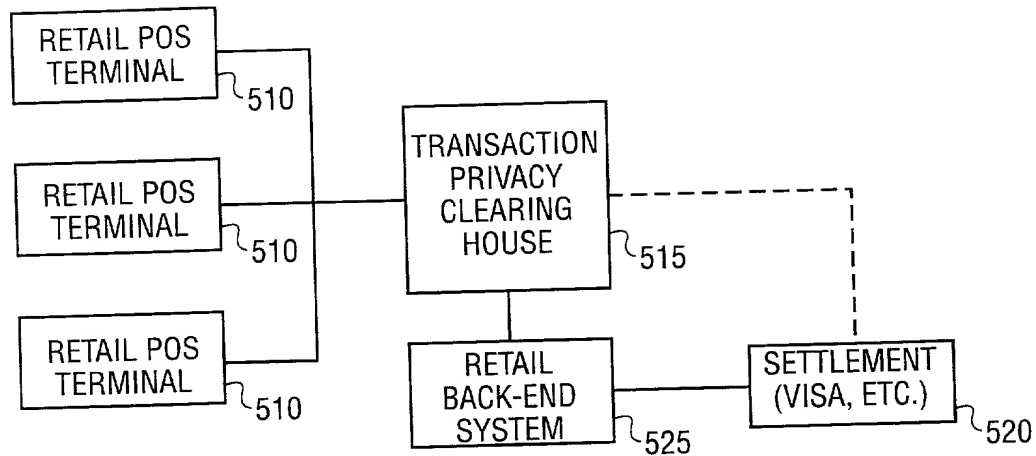
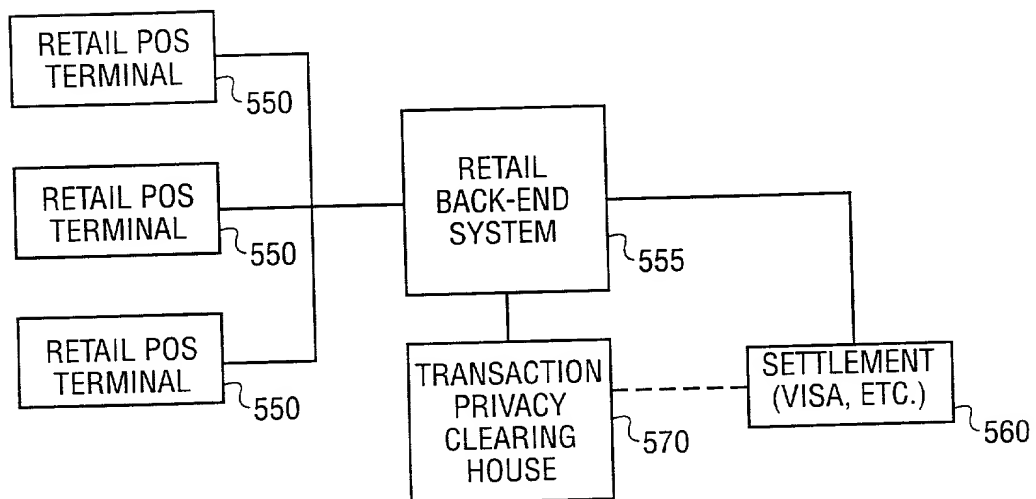


FIG. 4



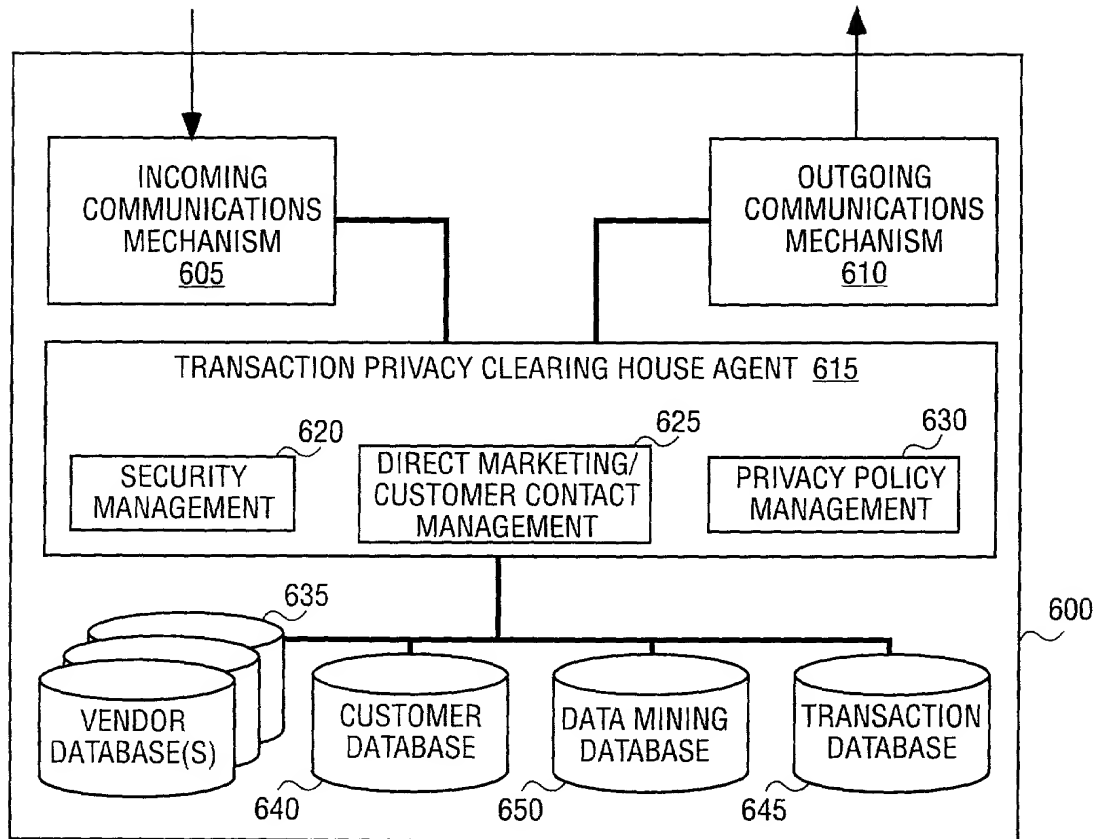
A RETAIL SYSTEM MODIFIED TO
SUPPORT THE INTERACTION OF LEGACY POS TERMINAL WITH
THE DIGITAL WALLET SYSTEM

FIG. 5A



AN ALTERNATIVE EMBODIMENT OF THE RETAIL SYSTEM
MODIFIED TO SUPPORT THE INTERACTION OF LEGACY POS
TERMINALS WITH THE DIGITAL WALLET SYSTEM

FIG. 5B



TRANSACTION PRIVACY CLEARING HOUSE: MAJOR COMPONENTS

FIG. 6

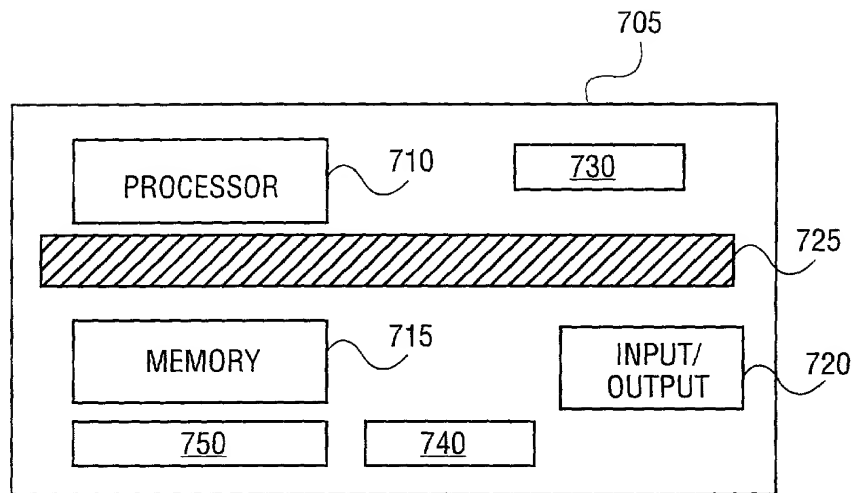


FIG. 7A

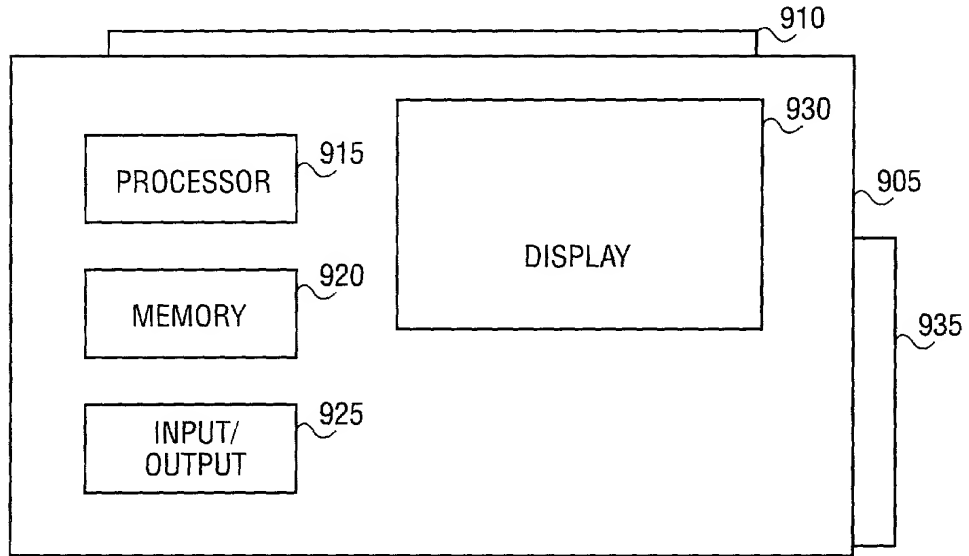


FIG. 9A

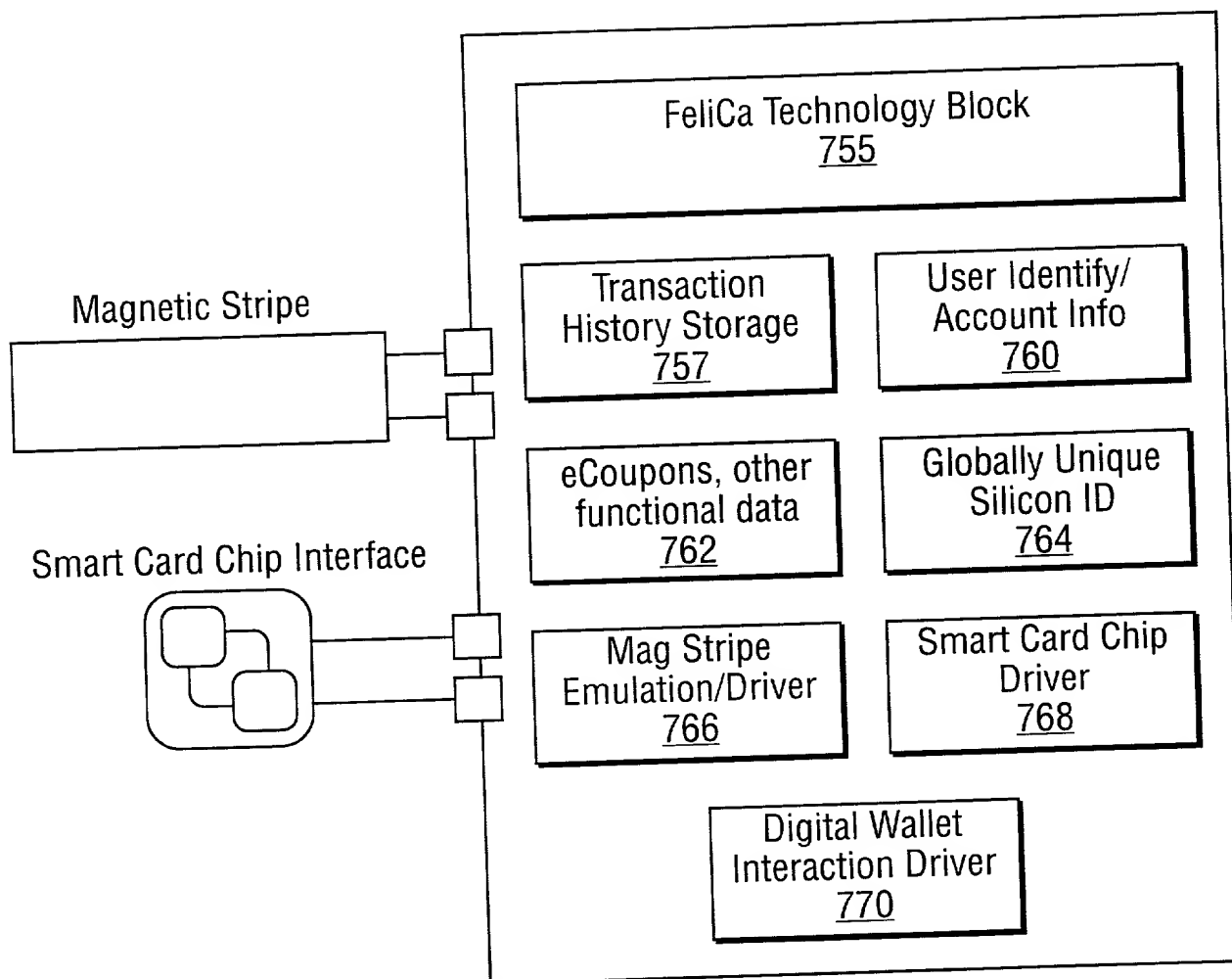


FIG. 7B

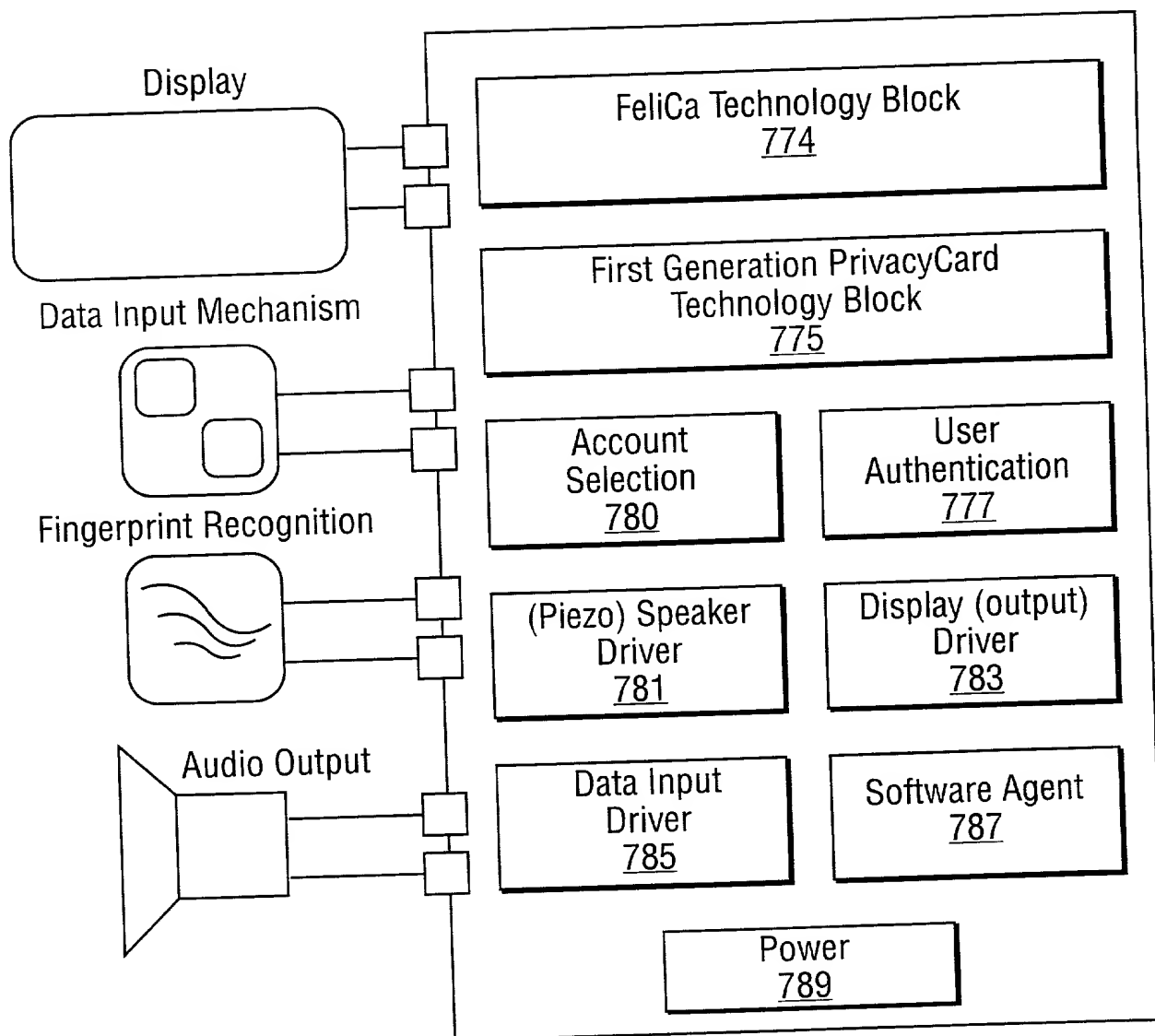
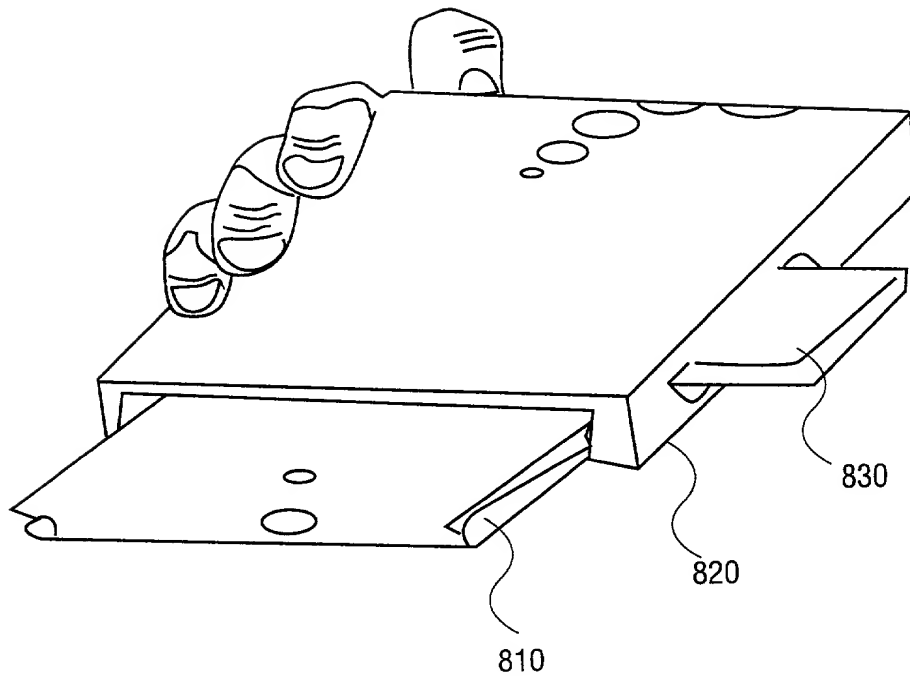


FIG. 7C



DIGITAL WALLET AND PRIVACY CARD

FIG. 8

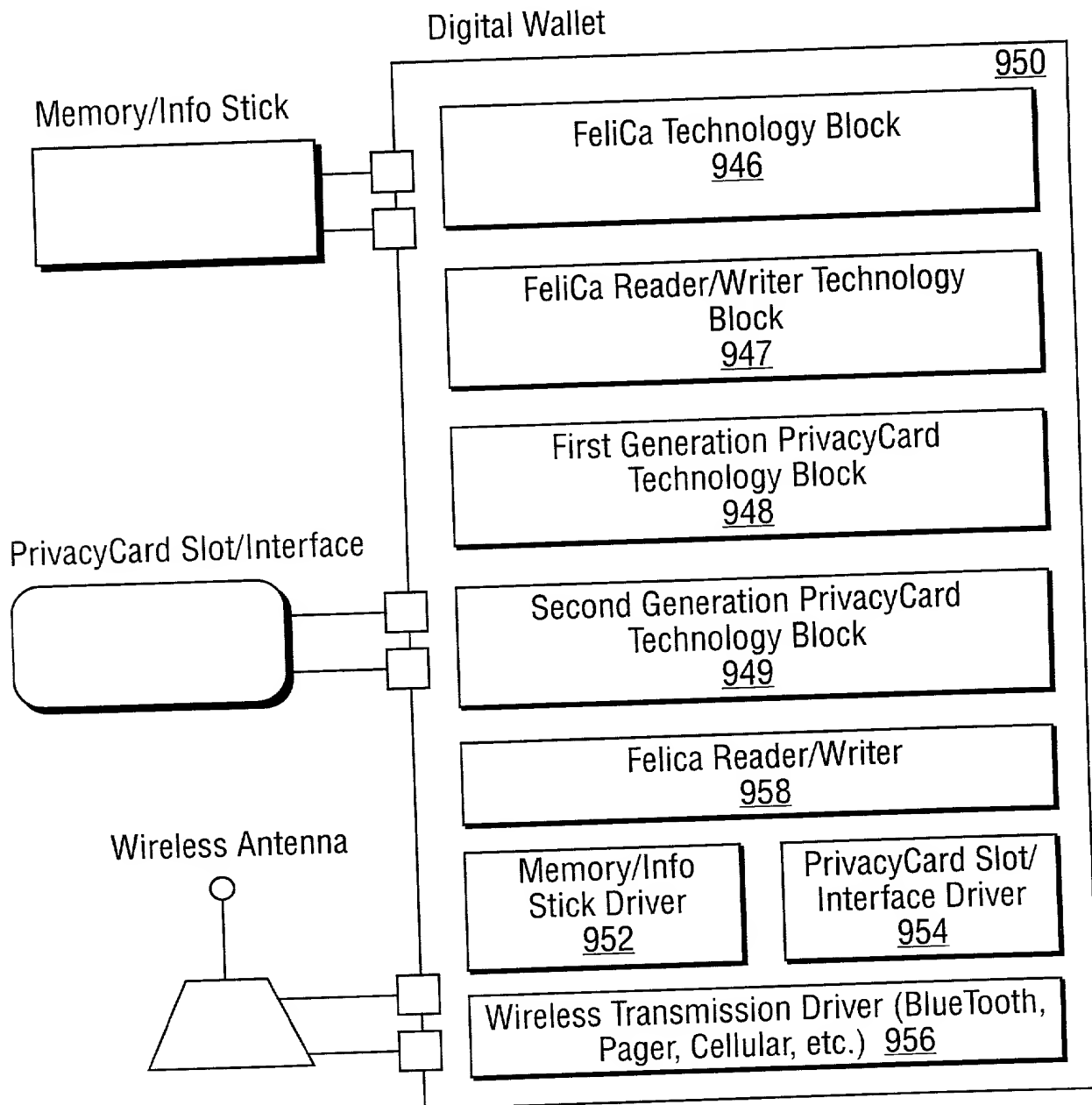
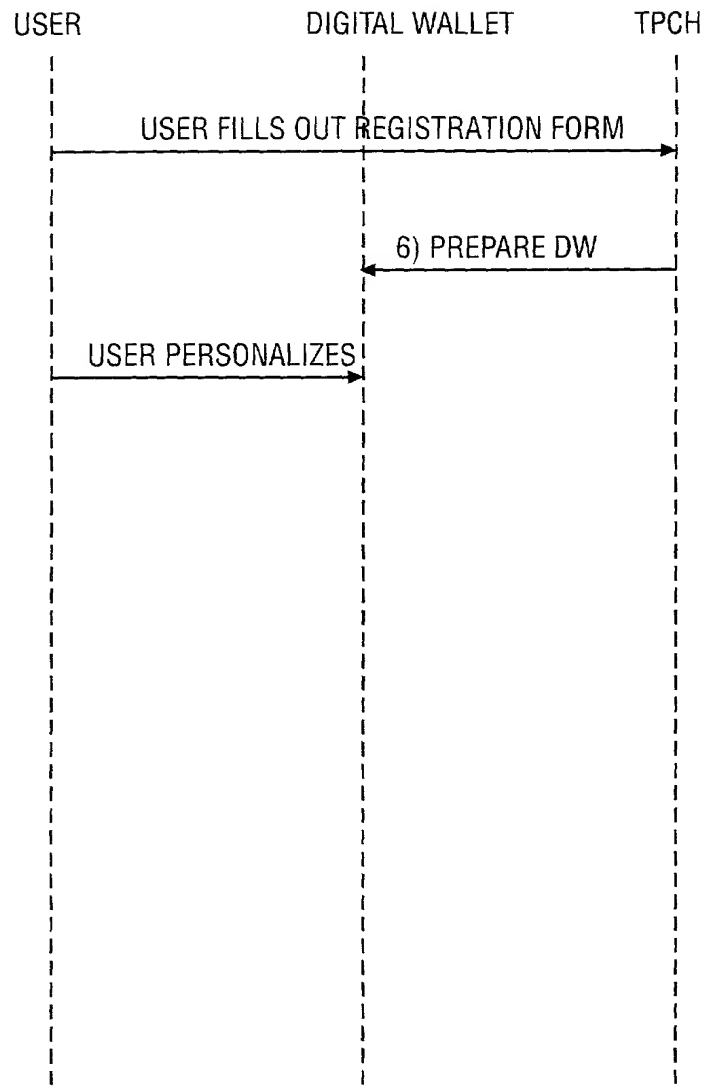


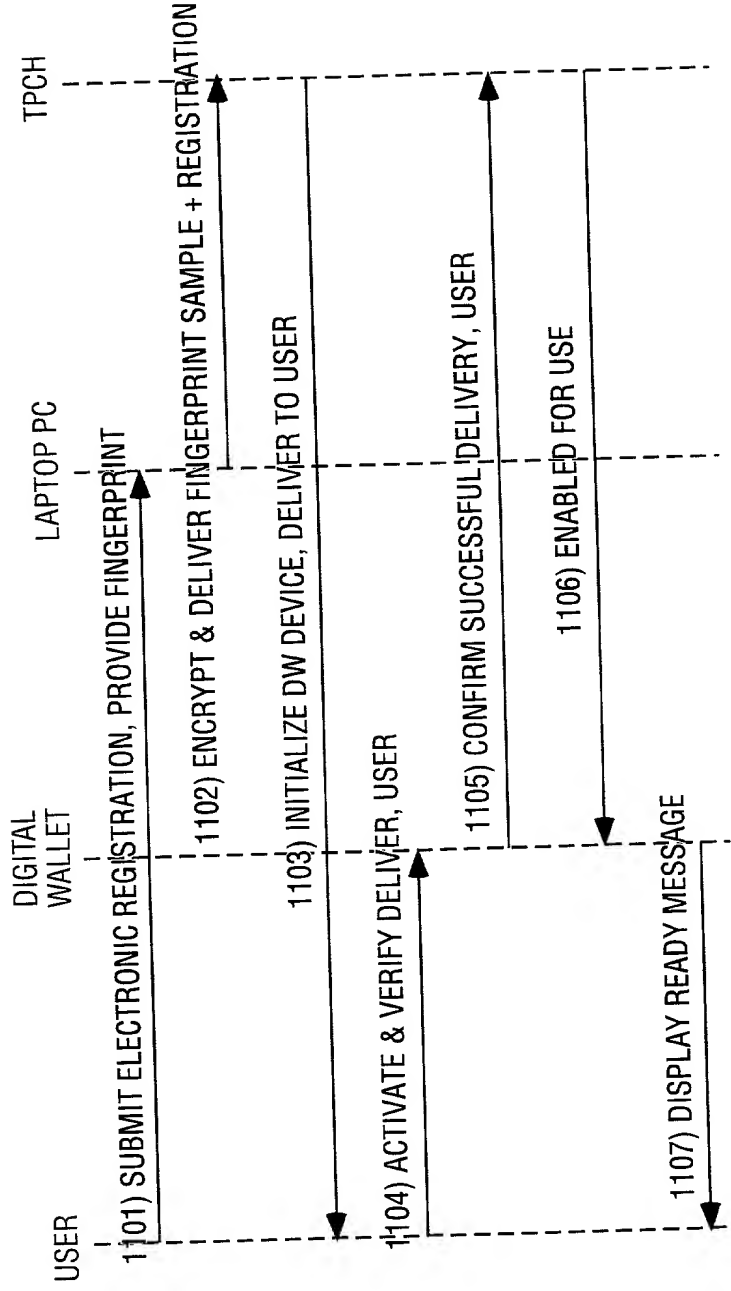
FIG. 9B

TPCH 443E/60



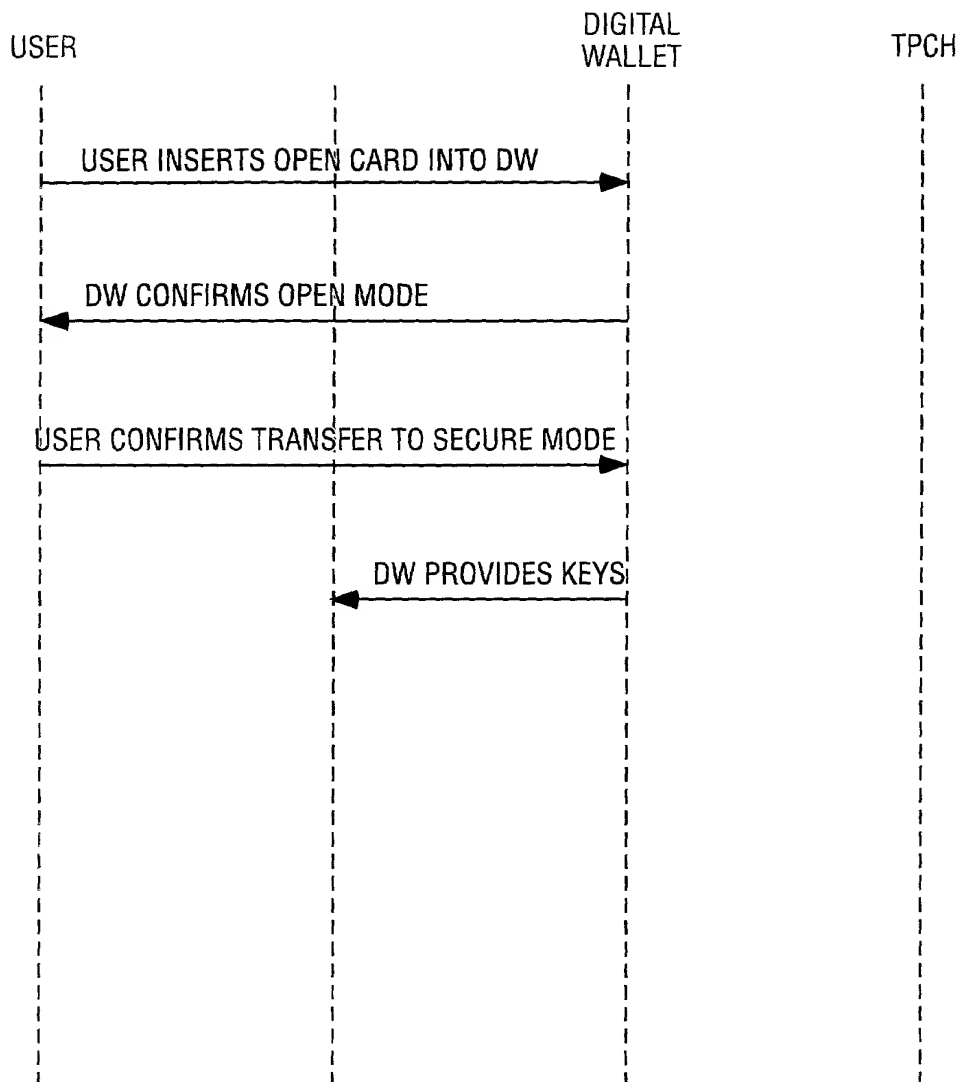
SETUP OF DIGITAL WALLET

FIG. 10



DIGITAL WALLET SETUP
(ALTERNATIVE EMBODIMENT)

FIG. 11



CONVERSION OF CARD TO SECURE

FIG. 12

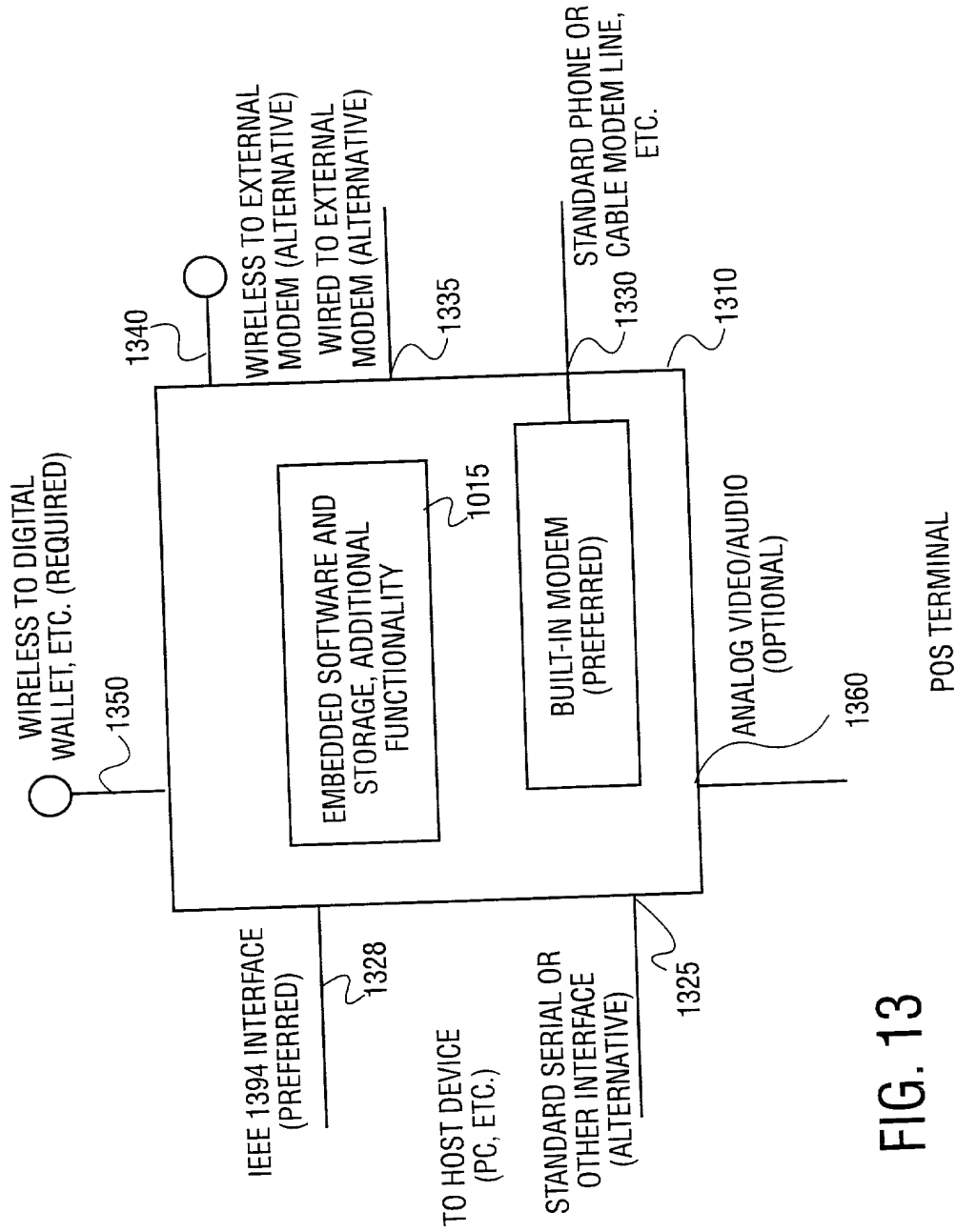


FIG. 13

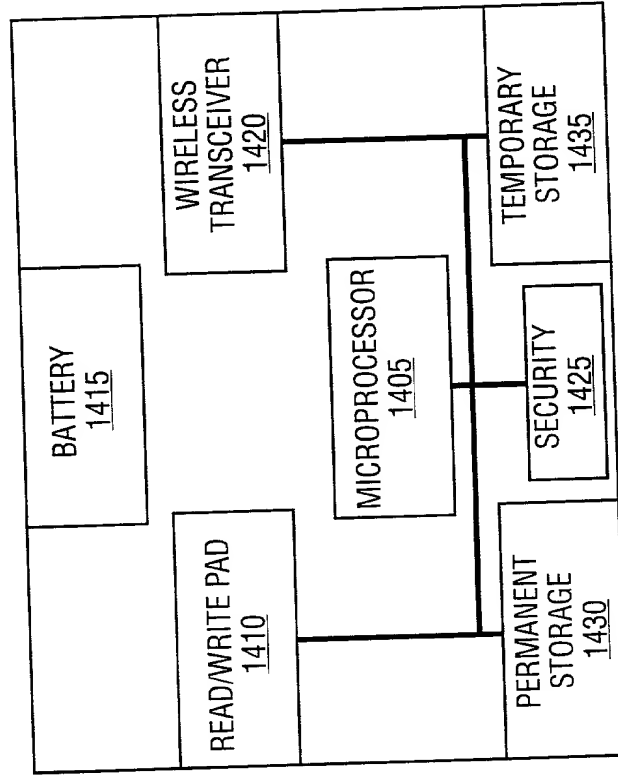


DIAGRAM OF THE MAJOR COMPONENTS OF THE
PERSONAL POS, SHOWING THE DATA/ADDRESS
BUS INTERCONNECT

FIG. 14

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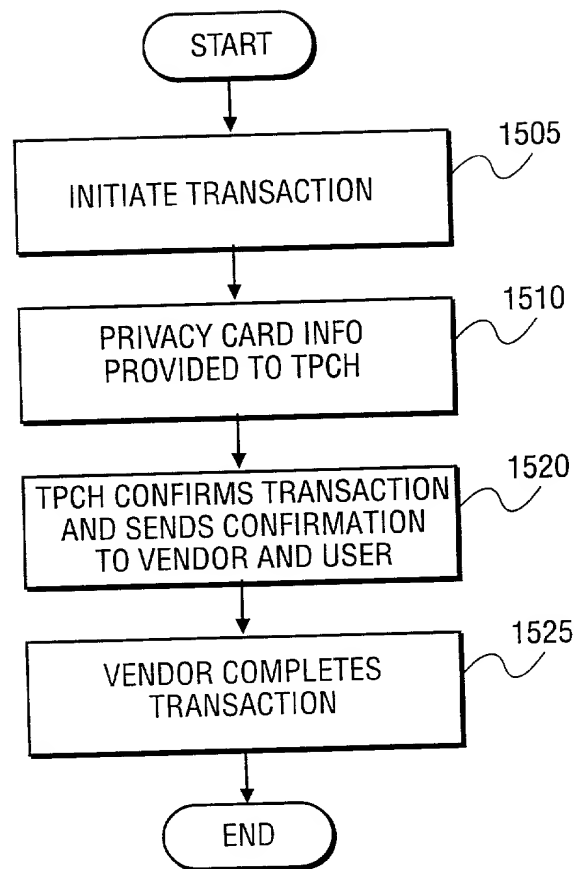
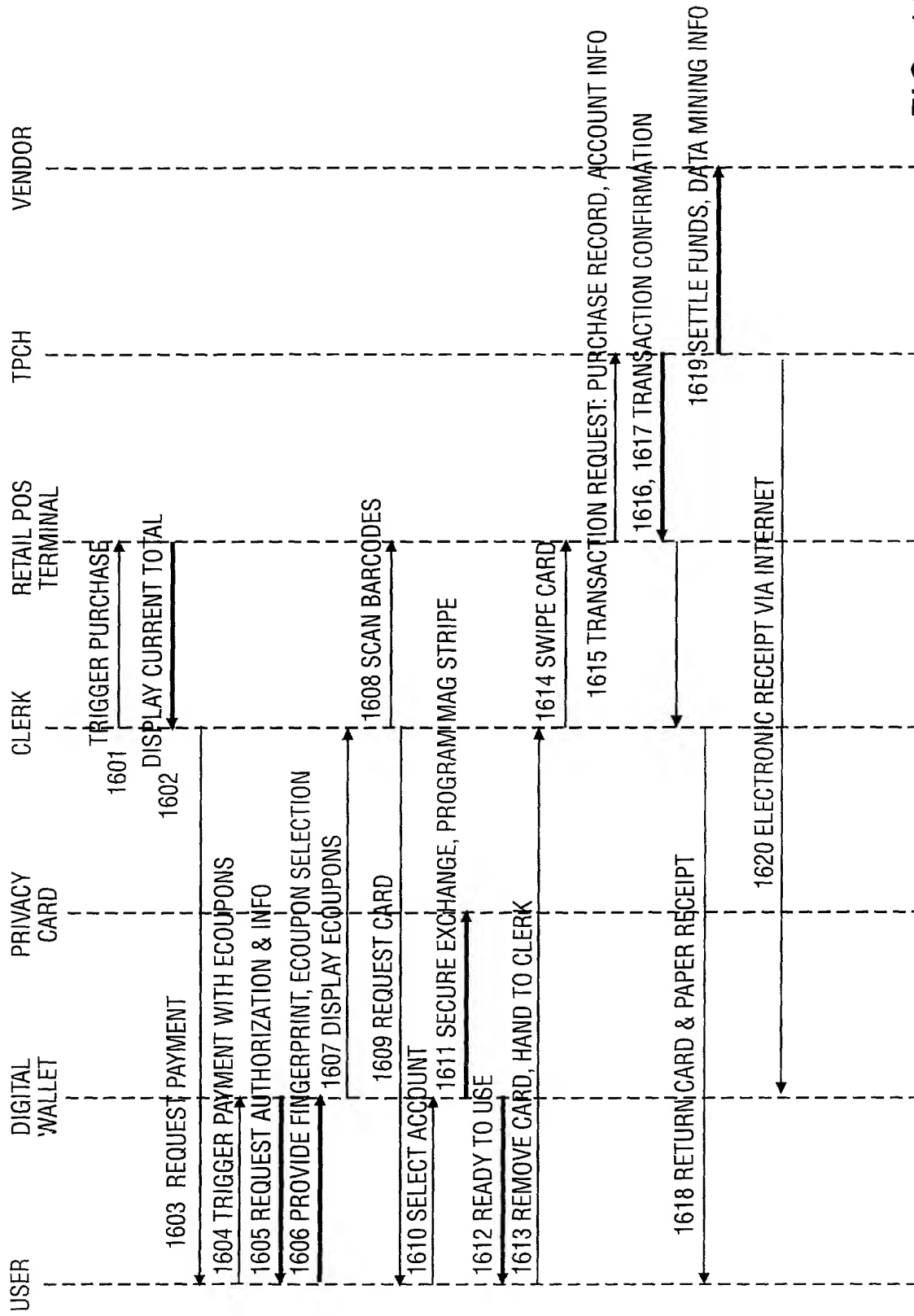


FIG. 15



RETAIL TRANSACTION

FIG. 16

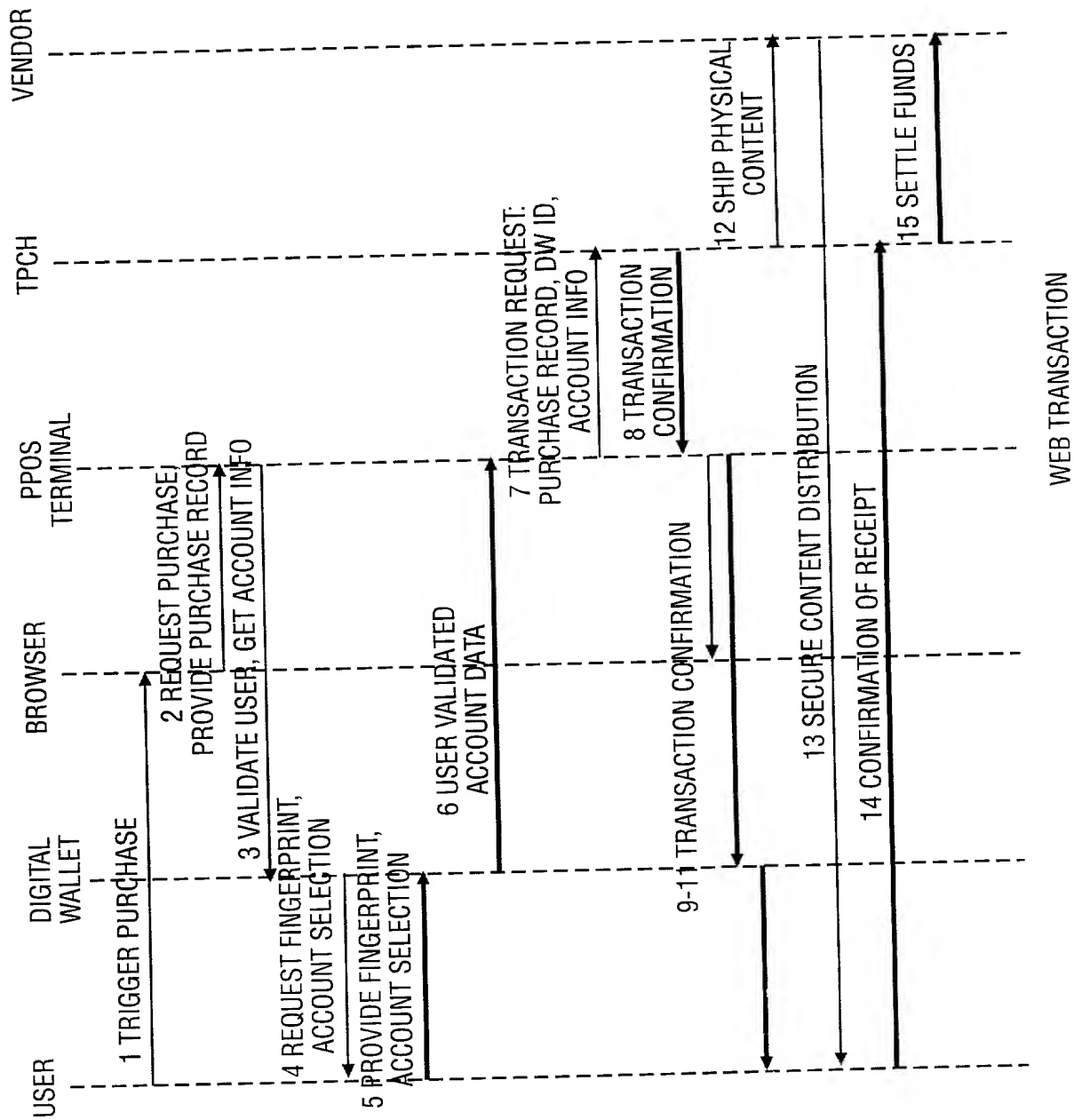


FIG. 17

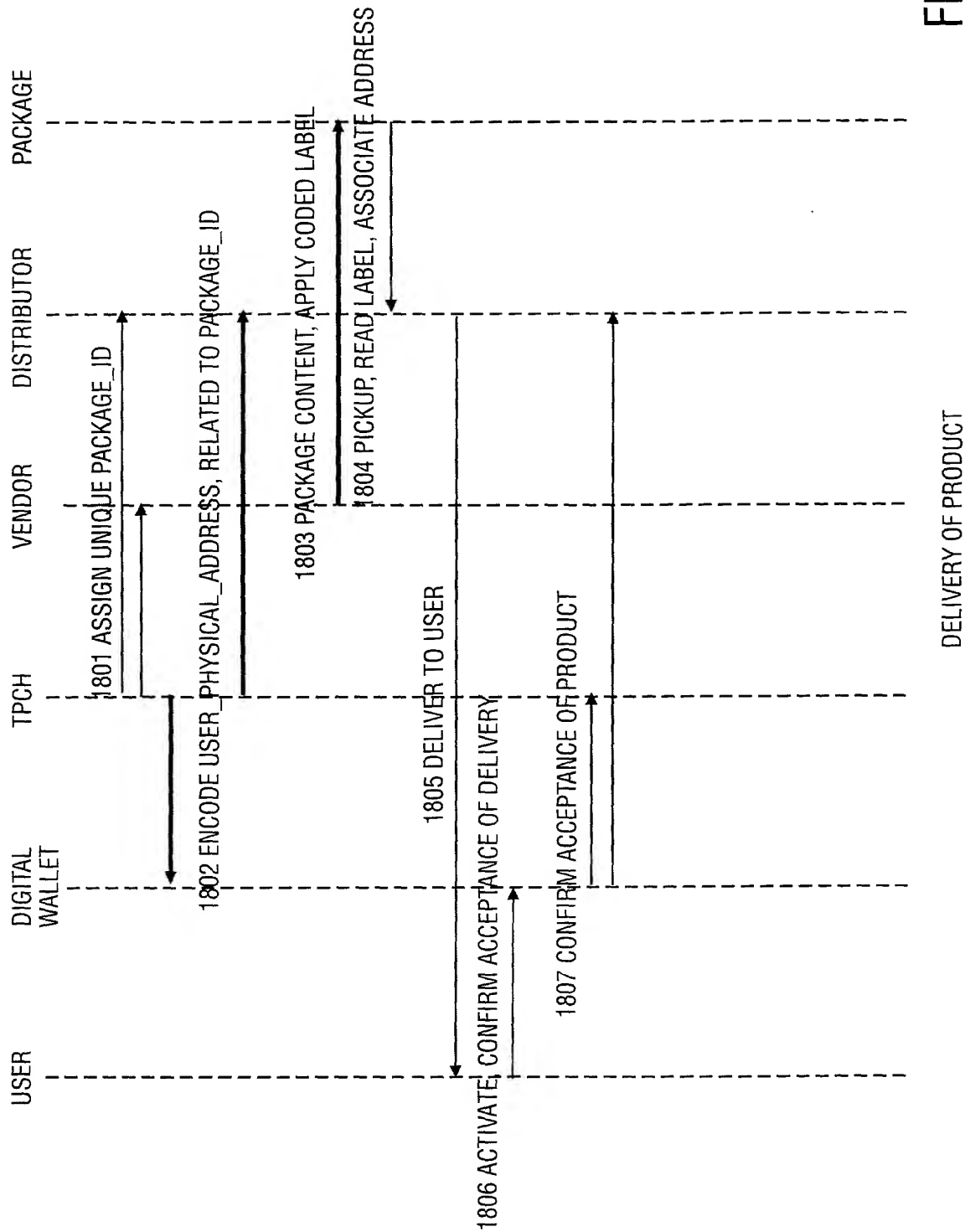
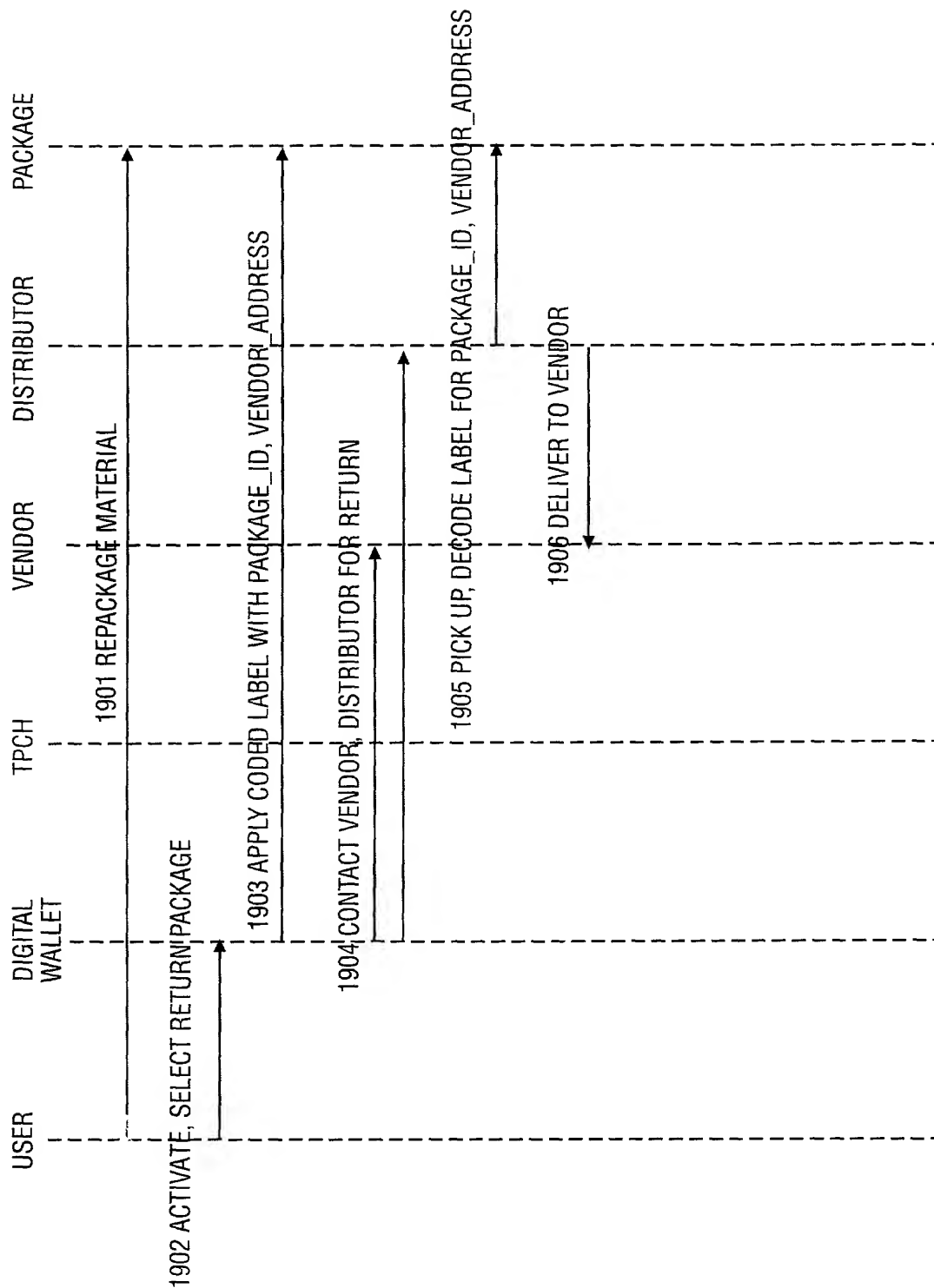
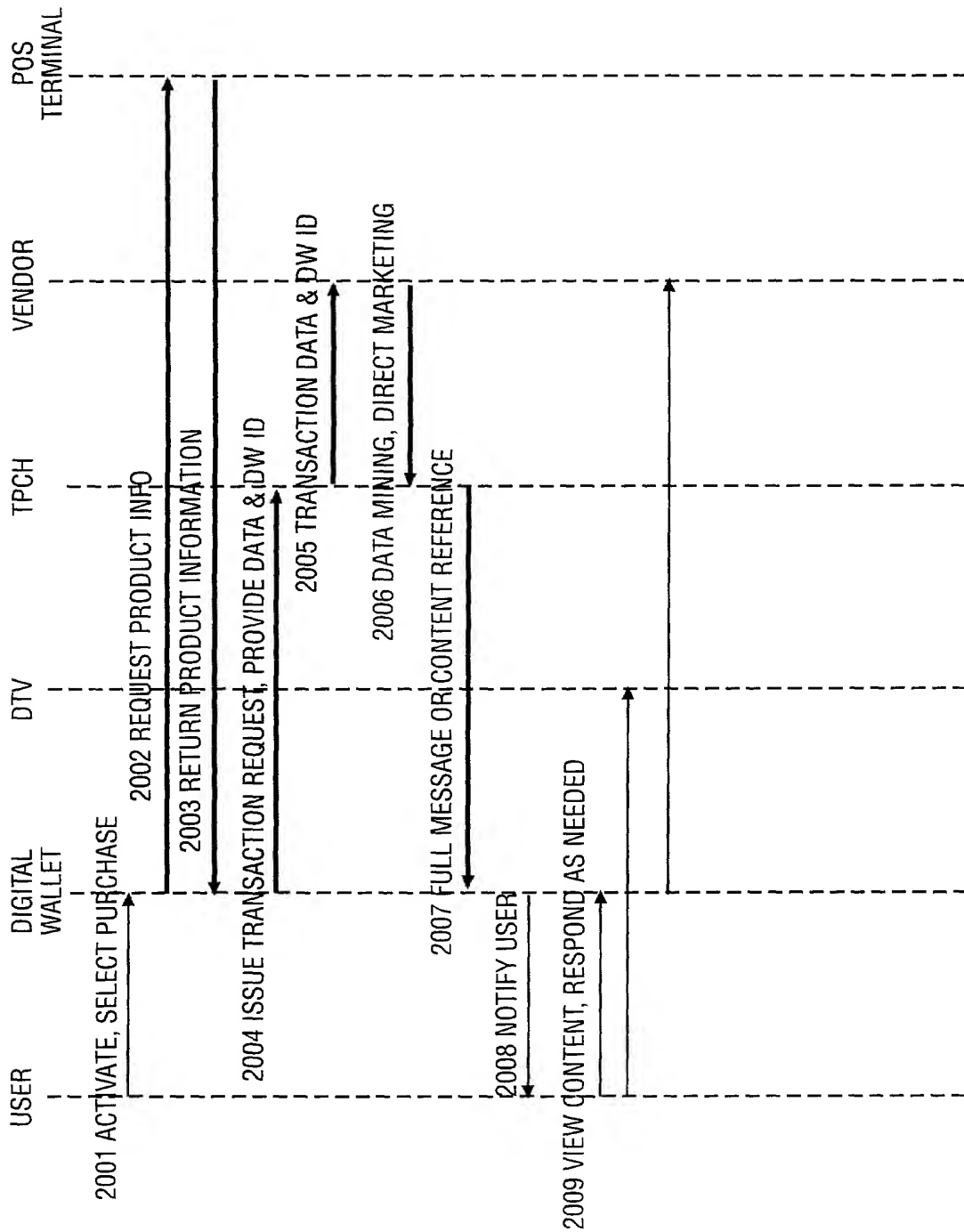


FIG. 18



RETURN OF PRODUCT

FIG. 19



DATA MINING

FIG. 20

2100

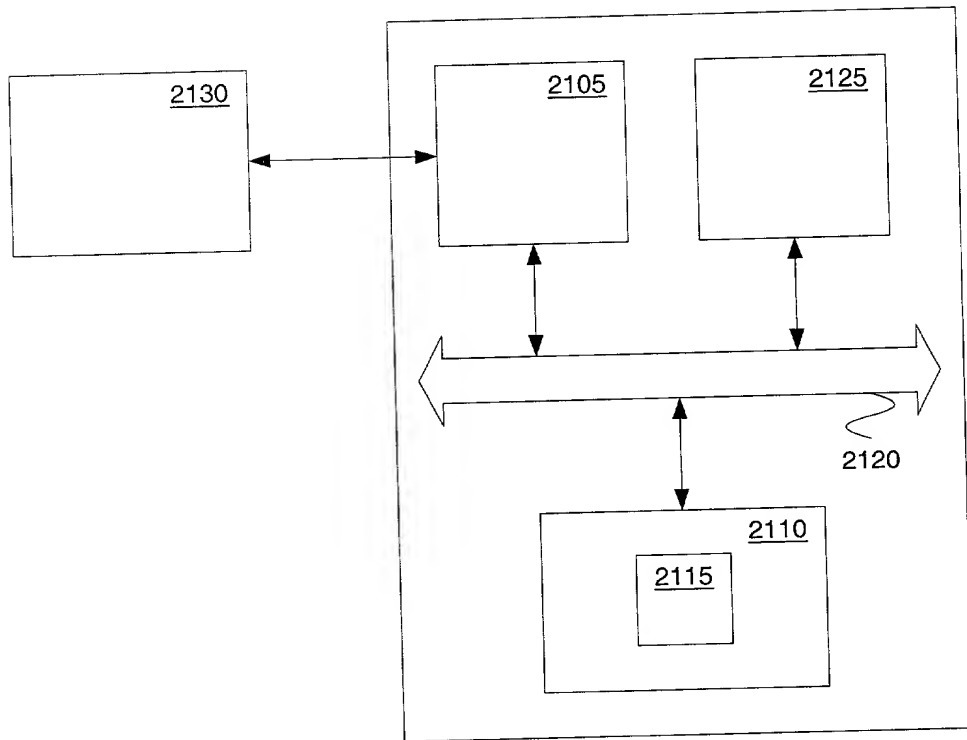


FIGURE 21

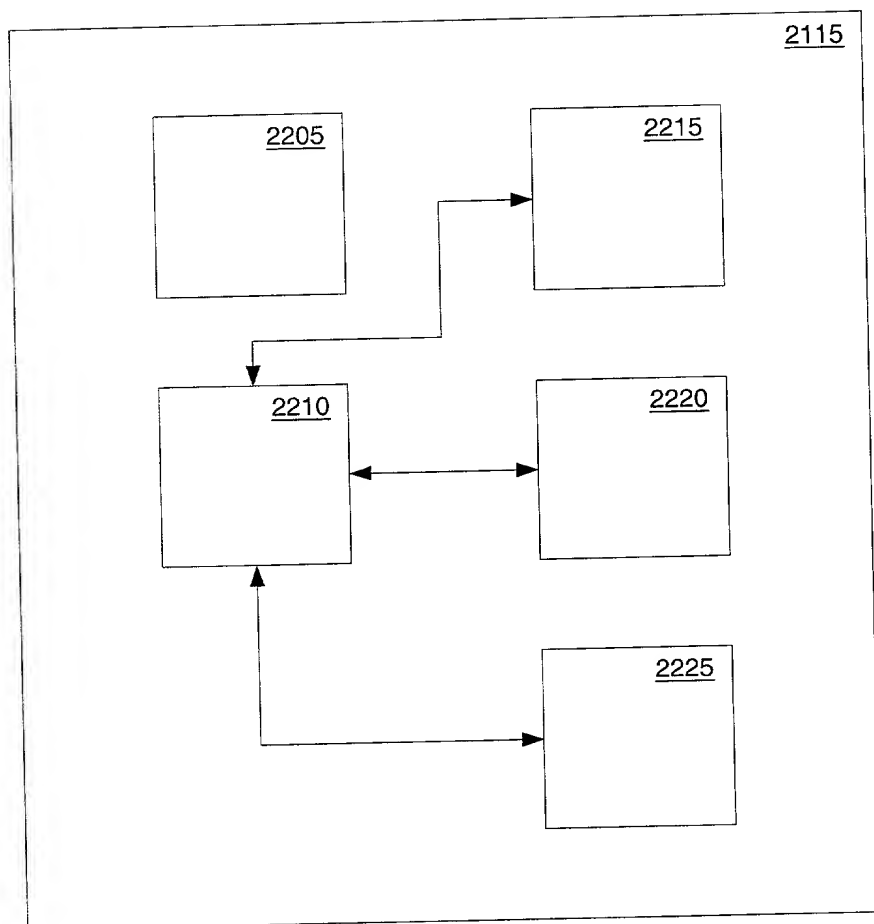


FIGURE 22

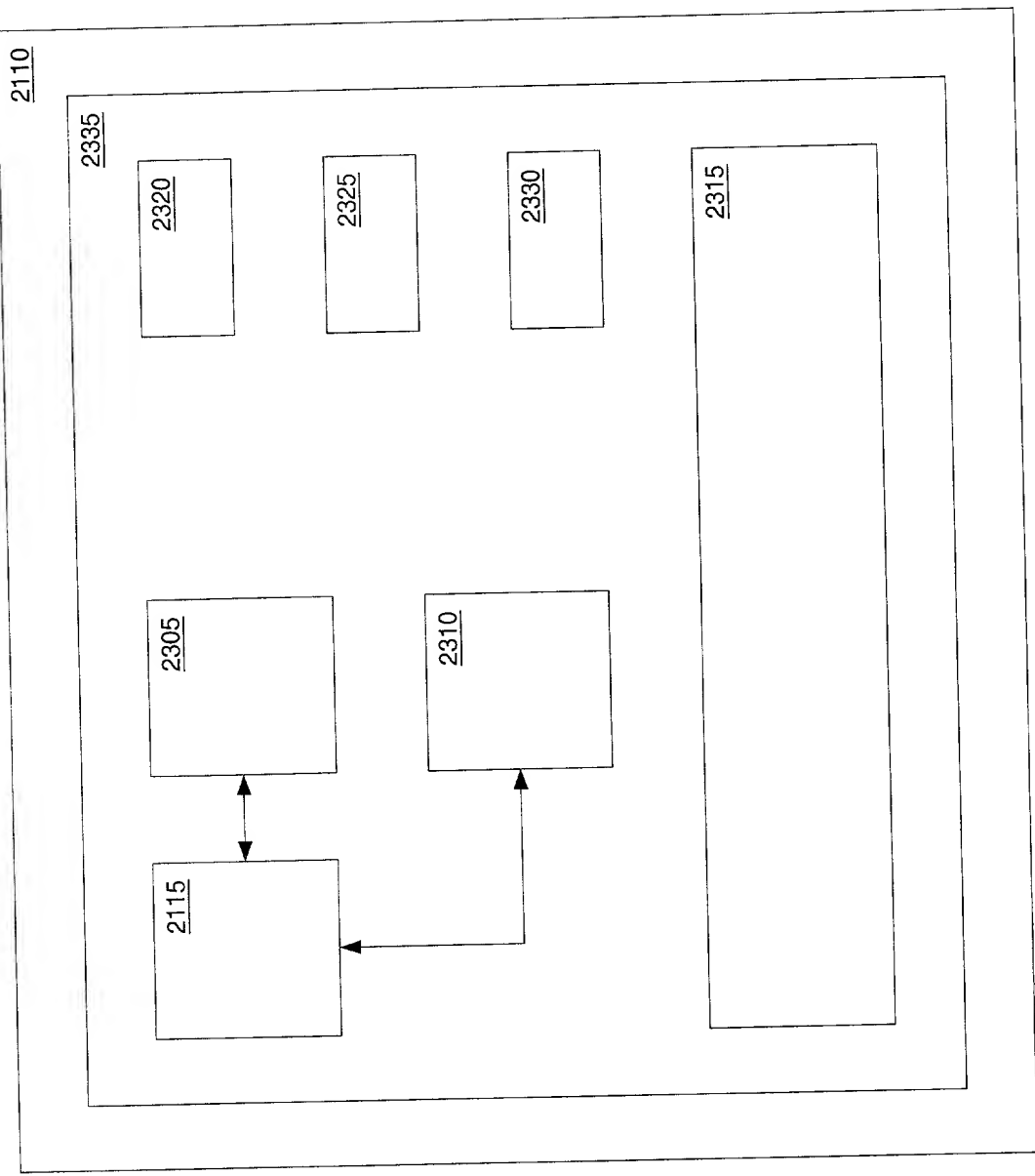


FIGURE 23

FIG. 24

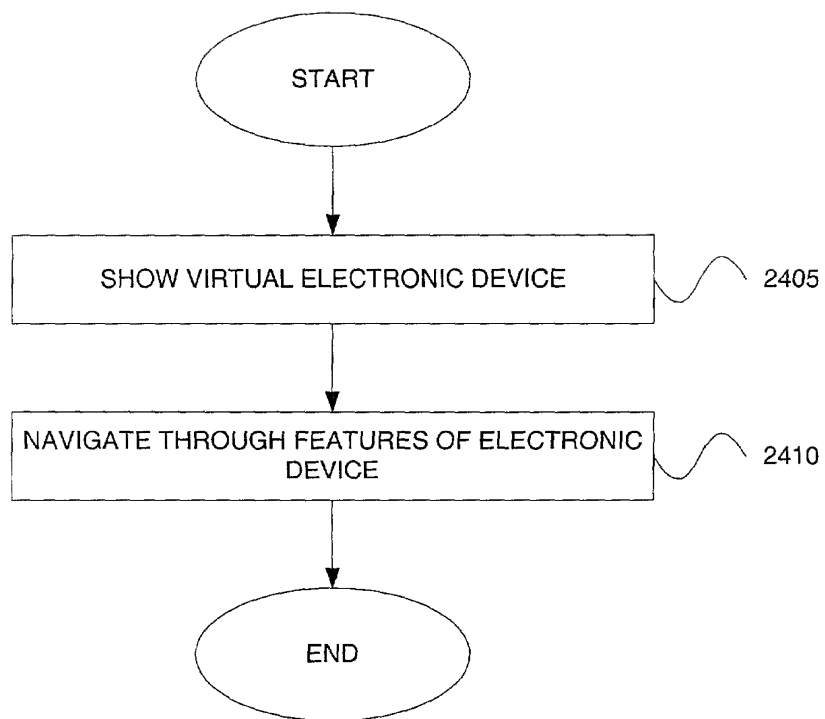


FIGURE 24

FIG. 25

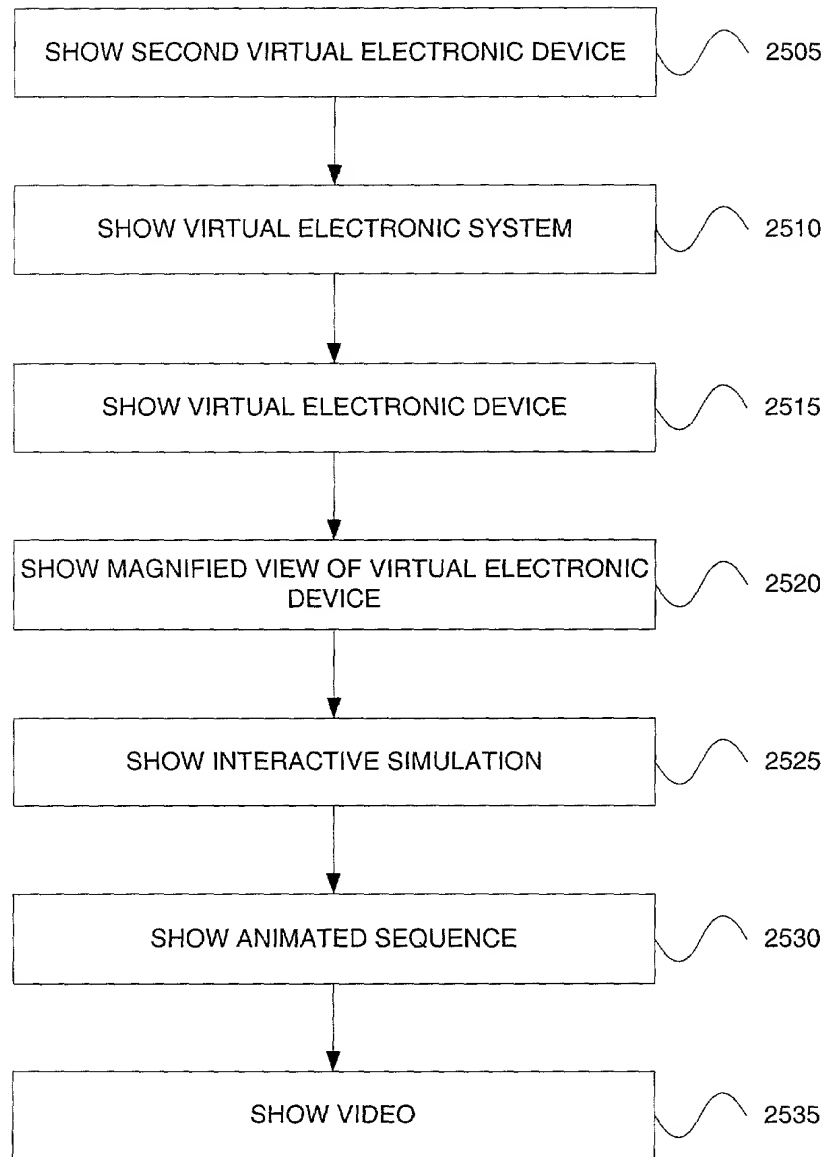


FIGURE 25